Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

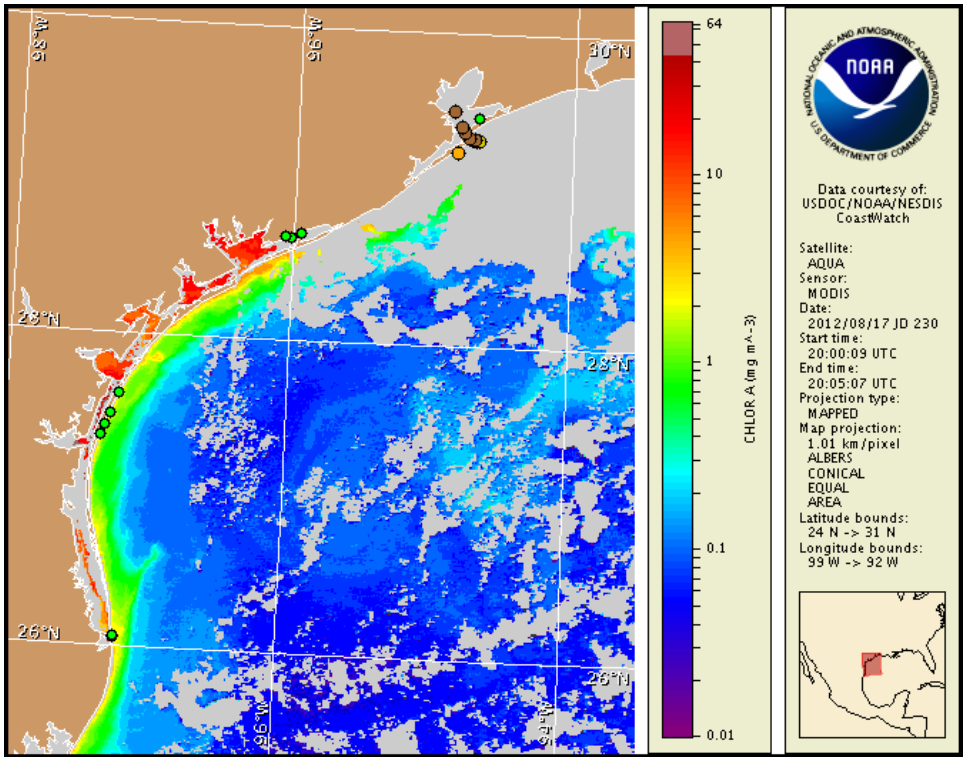
Monday, 20 August 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, August 16, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from August 10 to 16 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

A harmful algal bloom of Karenia brevis is present along the Texas coast, in the Galveston region. In the Galveston area, patchy moderate impacts are possible today through Wednesday. No additional impacts are expected at the coast in Texas today through Wednesday, August 22. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Analysis

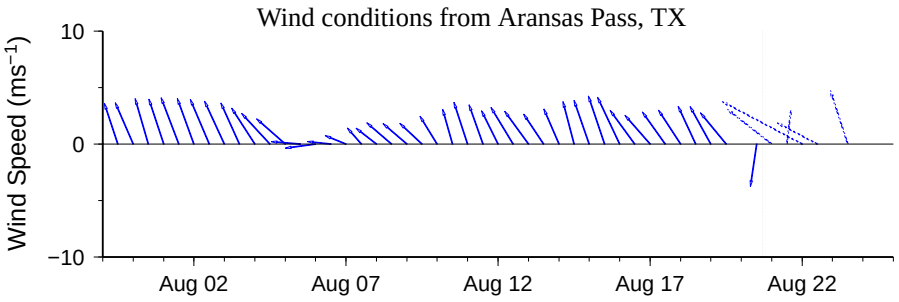
A harmful algal bloom of *Karenia brevis* was identified at various locations within Galveston Bay last week. The most recent samples continue to confirm 'low a' to 'low b' concentrations of *K. brevis* at Houston Ship Channel markers 16, 25, 35, 47 and 55, the east end of the seawall, and at both ends of the south jetty (8/16; TPWD, TDSHS). 'Low a' to 'low b' samples were identified at the mouth of Bolivar Roads Pass where 'medium' concentrations were identified earlier last week; however, no new samples have been collected alongshore the 91st St. Pier area where 'medium' *K. brevis* concentrations were previously identified (8/12-16; TPWD, TDSHS). No additional dead fish have been reported in the Galveston region since early last week (8/16-17; TPWD). TCEQ biologists reported no signs of dead fish, discolored water, or respiratory irritation from the lower Galveston Bay, including the Galveston Yacht Basin, the Texas City Dike area, the Texas City Ship Channel, and the Pelican's Island area (8/17; TPWD).

Overflights of the upper and lower Texas coastline conducted on 8/16 revealed no visible red tide or dead fish from east of the Bolivar Peninsula to Matagorda Island/Espiritu Santo Bay (Upper Coast) or from Pass Cavallo to the Rio Grande (Lower Coast), including the Gulf beaches and all major and minor bays (8/16; TPWD). The absence of a visible bloom is not necessarily indicative of the absence of *K. brevis*, but that cell counts are not high enough to discolor the water. Both the upper and lower coast will continue to be monitored regularly for *K. brevis* (8/16; TPWD). Samples collected from Drum Bay, Mission Bay, and alongshore Padre Island National Seashore and South Padre Island all indicate that *K. brevis* is not present (8/16-17; TPWD).

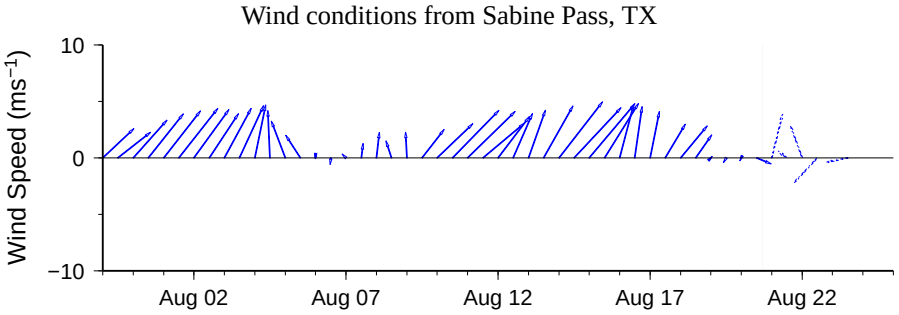
Recent MODIS imagery (8/17; shown left) is partially obscured by clouds along- and offshore from the Sabine Pass region to East Matagorda Bay, limiting analysis in this area. Elevated chlorophyll (1-6 μg/L) is visible along- and offshore the Galveston area and stretching south alongshore from the Galveston to Aransas Pass region. Elevated chlorophyll is not necessarily indicative of the presence of *K. brevis* and could also be due to the resuspension of benthic chlorophyll and sediments along the coast.

Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of 30 km north from the Galveston region and a potential transport of 20 km north from the Port Aransas region from August 16-23.

Derner, Davis



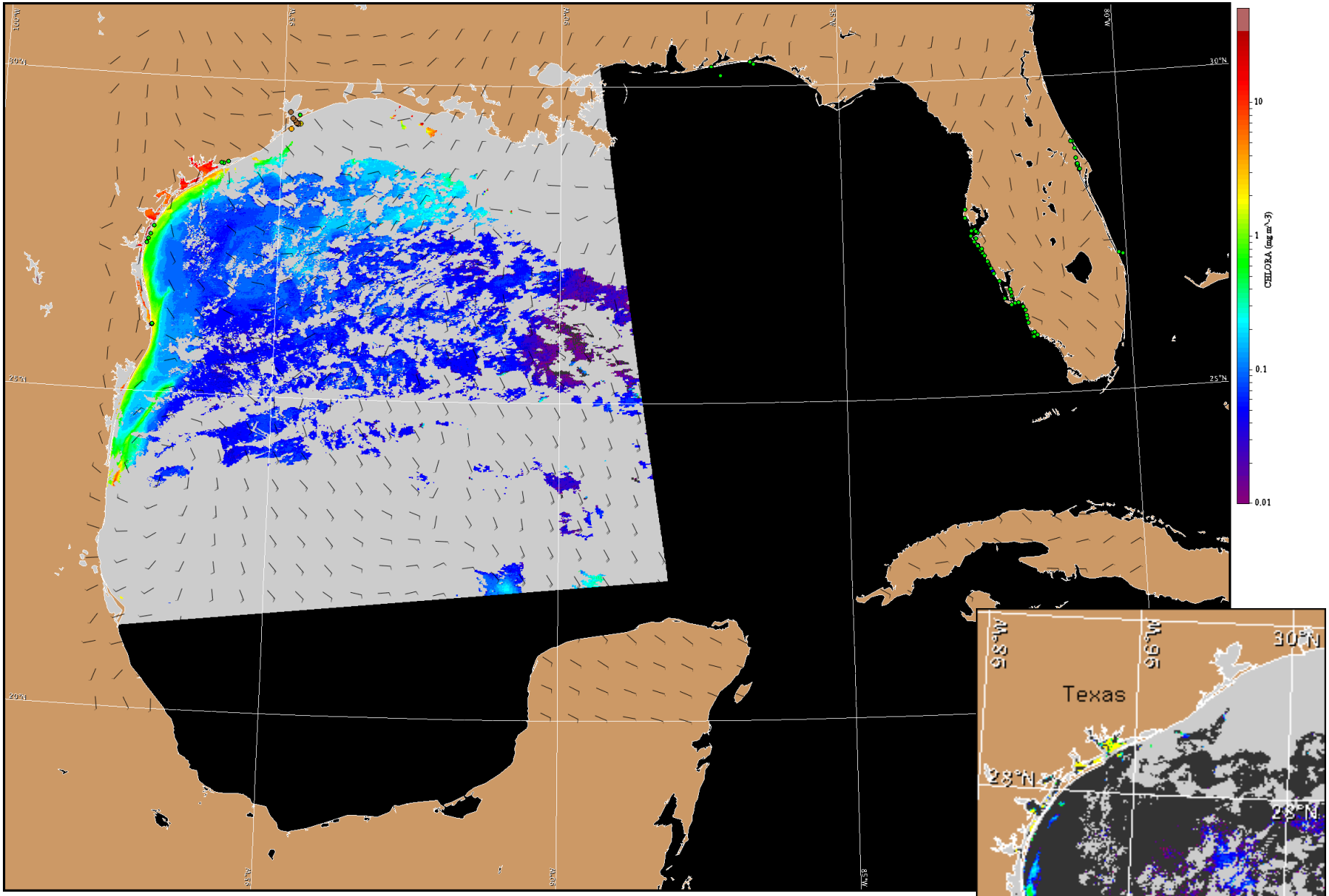
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Port Aransas: North wind (10-15kn, 5-8m/s) today becoming northeast (5-10kn, 3-5m/s) in the afternoon. Southeast winds (10-15kn) tonight. East winds (5-15kn, 3-8m/s) Tuesday and Wednesday during the day with southeast winds (10-15kn) Tuesday and Wednesday night.

Galveston: North winds (5-10kn) today becoming northeast in the afternoon. South winds (10-15kn) tonight become southeast (5kn, 3m/s) after midnight. East winds (5-10kn) Tuesday and Wednesday during the day with southeast winds (5-15kn) Tuesday and Wednesday night.



Satellite chlorophyll image and forecast winds for August 21, 2012 12Z with cell concentration sampling data from August 10 to 16 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:
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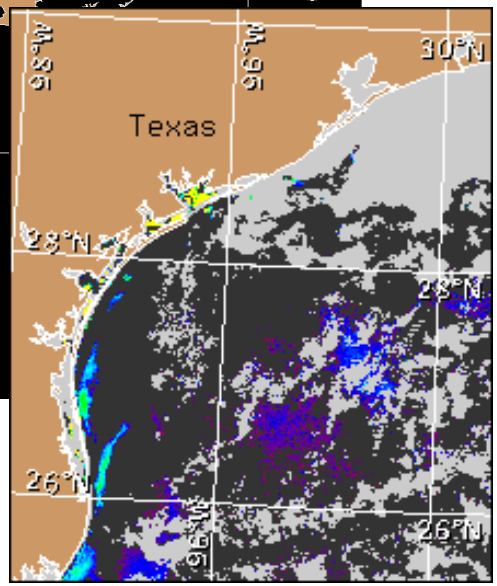

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).